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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Hirofumi HIDARI et al.

Application No.: 09/748,377

Filed: December 27, 2000

Docket No.: 108253



For: IMAGE INPUT/OUTPUT APPARATUS AND DOCUMENT PRESENTATION APPARATUS

PRELIMINARY AMENDMENT

Director of the U.S. Patent and Trademark Office  
Washington, D. C. 20231

Sir:

Prior to initial examination, please amend the above-identified application as follows:

Page 3, line 11 through Page 8, line 10 delete current paragraphs and insert therefor:

The basic components of the image input/output apparatus according to the present invention include an image-capturing device that assumes the operating state or a non-operating state and captures an image of a subject placed on a stage, an image generating device that generates an image based upon an input image signal and a projection illuminating device that illuminates and projects the image generated by the image generating device.

In order to achieve the object described above, the image input/output apparatus according to the present invention further comprises a detector that detects whether or not the image-capturing device is in the operating state, a selector that selects and outputs either a first image signal output by the image-capturing device or a second image signal input from the outside to the image generating device and a controller that drives the selector so as to select the first image signal if the detector detects that the image-capturing device is in the operating state.

Alternatively, the detector may detect that the image-capturing device is in the non-operating state. In this case, the controller drives the selector so as to select the second image signal if the image-capturing device is detected to be in the non-operating state. In addition, the image input/output apparatus having the detector that detects that the image-capturing device is in the non-operating state may be further provided with a subject illuminating device that illuminates the subject placed on the stage. When this structure is adopted, the controller turns off the subject illuminating device after selecting the second image signal by driving the selector if the detector detects that the image-capturing device is in the non-operating state.

The detector may detect a status shift occurring in the image-capturing device from the non-operating state to the operating state instead.

If the image input/output apparatus is provided with a power switch through which a power ON command is issued, the controller may engage the detector to detect whether or not the image-capturing device is in the operating state when the power is turned on through the power switch.

The object may be otherwise achieved by turning on the projection illuminating device instead of selecting either the first image signal or the second image signal when the detector detects that the image-capturing device is in the operating state.

The object described above may also be achieved in the image input/output apparatus according to the present invention having a subject illuminating device by further providing it with a determination device that determines that the subject illuminating device is fully lit and a controller that turns on the subject illuminating device and prohibits an image signal output until the determination device determines that the subject illuminating device is fully lit if the image-capturing device is detected to be in the operating state.

In addition, the object may be achieved in the image input/output apparatus according to the present invention by providing it with a selector that selects and outputs either a first image signal output by the image-capturing device or a second image signal input from the

outside to the image generating device, a detector that detects whether or not the image-capturing device is in the operating state, a determination device that determines that the subject illuminating device has been completely turned on and a controller that turns on the subject illuminating device and drives the selector so as to select the first image signal after the determination device determines that the subject illuminating device has been completely turned on if the detector detects that the image-capturing device is in the operating state, in addition to the basic components described earlier.

Alternatively, the object may be achieved in the image input/output apparatus according to the present invention by providing it with a selector that selects and outputs to the image generating device either a first image signal input from the image-capturing device or a second image signal input from the outside, a detector that detects the ON/OFF state of the subject illuminating device and a controller that drives the selector so as to output the first image signal if the detector detects an ON state and to output the second image signal if the detector detects an OFF state.

The object may also be achieved in the image input/output apparatus according to the present invention by providing it with a selector that selects and outputs to the image generating device either a first image signal input from the image-capturing device or a second image signal input from the outside, a detector that detects whether the first image signal or the second image signal has been input and a controller that drives the selector so as to output the image signal, the input of which has been detected by the detector. The controller in this image input/output apparatus is capable of prohibiting an image signal output by the selector if the detector detects neither the first image signal nor the second image signal.

The structural features described above may be adopted in a document presentation apparatus comprising an image-capturing device that assumes the operating state or the non-operating state and captures an image of a subject placed on a stage, a detector that detects

whether or not the image-capturing device is in the operating state and a selector that selects and outputs either a first image signal output by the image-capturing device or a second image signal input from the outside.

Alternatively, the object described above may be achieved in the document presentation apparatus according to the present invention by providing it with an image-capturing device that assumes the operating state or the non-operating state and outputs an image signal by capturing an image of a subject placed on a stage, a detector that detects whether or not the image-capturing device is in the non-operating state and a prohibitor that prohibits an image signal output if the detector detects that the image-capturing device is in the non-operating state.

IN THE CLAIMS:

Please cancel claims 1-20 without prejudice to or disclaimer of the subject matter contained therein.

Please add new claims 21-40 as follows:

--21. An image input/output apparatus comprising;

an image-capturing device that assumes the operating state or the non-operating state and captures an image of a subject placed on a stage;

an image generating device that generates an image based upon an image signal input thereto;

a projection illuminating device that illuminates and projects the image generated by said image generating device;

a detector that detects whether or not said image-capturing device is in the operating state;

a selector that selects and outputs to said image generating device either a first image signal output by said image-capturing device or a second image signal input from the outside; and

a controller that drives said selector so as to select the first image signal if said detector detects that said image-capturing device is in the operating state.--

--22. An image input/output apparatus according to claim 1, wherein;

    said detector detects a shift from the non-operating state to the operating state occurring in said image-capturing device. --

--23. An image input/output apparatus according to claim 1, further comprising;

    a power switch through which a power-up command is issued, wherein;

    said controller engages said detector to detect whether or not said image-capturing device is in the operating state when power is turned on through said power switch. --

--24. An image input/output apparatus comprising;

    an image-capturing device that assumes the operating state or the non-operating state and captures an image of a subject placed on a stage;

    an image generating device that generates an image based upon an image signal input thereto;

    a projection illuminating device that illuminates and projects the image generated by said image generating device;

    a detector that detects whether or not said image-capturing device is in the operating state; and

    a controller that turns on said projection illuminating device if said detector detects that said image-capturing device is in the operating state.--

--25. An image input/output apparatus comprising;

    an image-capturing device that assumes an operating state or the non-operating state and captures an image of a subject placed on a stage;

    a subject illuminating device that illuminates the subject placed on said stage;

    an image generating device that generates an image based upon an image signal input thereto;

a projection illuminating device that illuminates and projects the image generated by said image generating device;

a detector that detects whether or not said image-capturing device is in the operating state;

a determination device that determines that said subject illuminating device is fully lit;

and

a controller that turns on said subject illuminating device if said detector detects that said image-capturing device is in the operating state and prohibits output of the image signal until said determination device determines that said subject illuminating device is fully lit.--

--26. An image input/output apparatus comprising;

an image-capturing device that assumes the operating state or the non-operating state and captures an image of a subject placed on a stage;

a subject illuminating device that illuminates the subject placed on said stage;

an image generating device that generates an image based upon an image signal input thereto;

a projection illuminating device that illuminates and projects the image generated by said image generating device;

a selector that selects and outputs to said image generating device either a first image signal output by said image-capturing device or a second image signal input from the outside;

a detector that detects whether or not said image-capturing device is in the operating state; and

a determination device that determines that said subject illuminating device is fully lit;

and

a controller that turns on said subject illuminating device if said detector detects that said image-capturing device is in the operating state and drives said selector so as to select the first image signal after said determination device determines that said subject illuminating

device is fully lit.--

--27. A document presentation apparatus comprising;  
an image-capturing device that assumes the operating state or the non-operating state  
and captures an image of a subject placed on a stage;  
a detector that detects whether or not said image-capturing device is in the operating  
state;  
a selector that selects and outputs either a first image signal output by said image-  
capturing device or a second image signal input from the outside; and  
a controller that drives said selector so as to select the first image signal if said  
detector detects that said image-capturing device is in the operating state.--

--28. A document presentation apparatus comprising;  
an image-capturing device that assumes the operating state or the non-operating state  
and captures an image of a subject placed on a stage;  
a subject illuminating device that illuminates the subject placed on said stage;  
a detector that detects whether or not said image-capturing device is in the operating  
state;  
a determination device that determines that said subject illuminating device is fully lit;  
and

a controller that turns on said subject illuminating device if said detector detects that  
said image-capturing device is in the operating state and prohibits output of the image signal  
until said determination device determines that said subject illuminating device is fully lit.--

--29. A document presentation apparatus comprising;  
an image-capturing device that assumes the operating state or the non-operating state  
and captures an image of a subject placed on a stage;  
a subject illuminating device that illuminates the subject placed on said stage;  
a selector that selects and outputs either a first image signal output by said image-

capturing device or a second image signal input from the outside;

a detector that detects whether or not said image-capturing device is in the operating state;

a determination device that determines that said subject illuminating device is fully lit; and

a controller that turns on said subject illuminating device if said detector detects that said image-capturing device is in the operating state and drives said selector so as to select the first image signal after said determination device determines that said subject illuminating device is fully lit.--

--30. A document presentation apparatus comprising;

an image-capturing device that assumes the operating state or the non-operating state, captures an image of a subject placed on a stage and outputs an image signal;

a detector that detects whether or not said image-capturing device is in the non-operating state; and

a prohibitor that prohibits output of the image signal if said detector detects that said image-capturing device is in the non-operating state.--

--31. An image input/output apparatus comprising;

an image-capturing device that assumes the operating state or the non-operating state and captures an image of a subject placed on a stage;

an image generating device that generates an image based upon an image signal input thereto;

a projection illuminating device that illuminates and projects the image generated by said image generating device;

a detector that detects whether or not said image-capturing device is in the non-operating state;

a selector that selects and outputs to said image generating device either a first image

signal output by said image-capturing device or a second image signal input from the outside; and

    a controller that drives said selector so as to select the second image signal if said detector detects that said image-capturing device is in the non-operating state.--

--32. An image input/output apparatus according to claim 11, further comprising;

    a subject illuminating device that illuminates the subject placed on said stage, wherein;

    said controller turns off said subject illuminating device after selecting the second image signal by driving said selector if said detector detects that said image-capturing device is in the non-operating state. --

--33. A document presentation apparatus comprising;

    an image-capturing device that assumes the operating state or the non-operating state and captures an image of a subject placed on a stage;

    a selector that selects and outputs either a first image signal output by said image-capturing device or a second image signal input from the outside;

    a detector that detects whether or not said image-capturing device is in the non-operating state; and

    a controller that drives said selector so as to output the second image signal if said detector detects that said image-capturing device is in the non-operating state.--

--34. A document presentation apparatus according to claim 13, further comprising;

    a subject illuminating device that illuminates the subject placed on said stage, wherein;

    said controller turns off said subject illuminating device after selecting the second image signal by driving said selector if a said detector detects that said image-capturing device is in the non-operating state.--

--35. An image input/output apparatus, comprising;

an image-capturing device that captures an image of a subject placed on a stage;  
a subject illuminating device that illuminates the subject;  
an image generating device that generates an image based upon an image signal input thereto;  
a projection illuminating device that illuminates and projects the image generated by said image generating device;

a selector that selects and outputs to said image generating device either a first image signal input from said image-capturing device or a second image signal input from the outside;

a detector that detects an ON/OFF state of said subject illuminating device; and  
a controller that drives said selector so as to output the first image signal if said detector detects the ON state and to output the second image signal if said detector detects the OFF state. --

--36. A document presentation apparatus, comprising;

an image-capturing device that captures an image of a subject placed on a stage;  
a subject illuminating device that illuminates the subject;  
a selector that selects and outputs either a first image signal input from said image-capturing device or a second image signal input from the outside;  
a detector that detects an ON/OFF state of said subject illuminating device; and  
a controller that drives said selector so as to output the first image signal if said detector detects the ON state and to output the second image signal if said detector detects the OFF state.--

--37. An image input/output apparatus, comprising;

an image-capturing device that captures an image of a subject placed on a stage;  
an image generating device that generates an image based upon an image signal input thereto;

a projection illuminating device that illuminates and projects the image generated by said image generating device;

    a selector that selects and outputs to said image generating device either a first image signal input from said image-capturing device or a second image signal input from the outside;

    a detector that detects whether or not the first image signal or the second image signal has been input; and

    a controller that drives said selector so as to output the image signal, the input of which has been detected by said detector.--

--38. An image input/output apparatus according to claim 17, wherein;

    said controller prohibits an image signal output by said selector if said detector does not detect either the first image signal or the second image signal.--

--39. A document presentation apparatus, comprising;

    an image-capturing device that captures an image of a subject placed on a stage;  
    a selector that selects and outputs either a first image signal input from said image-capturing device or a second image signal input from the outside;

    a detector that detects whether or not the first image signal or the second image signal has been input; and

    a controller that drives said selector so as to output the image signal, the input of which has been detected by said detector.--

--40. A document presentation apparatus according to claim 19, wherein;

    said controller prohibits an image signal output by said selector if said detector does not detect either the first image signal or the second image signal.--

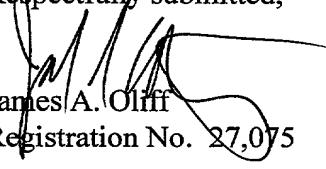
REMARKS

Claims 21 - 40 are pending. By this Preliminary Amendment, claims 1-20 are cancelled without prejudice to or disclaimer of the subject matter contained therein, and the specification is amended.

Prompt and favorable examination on the merits is respectfully requested.

The attached Appendix includes marked-up copies of each rewritten claim (37 C.F.R. 1.121(c)(1)(ii)).

Respectfully submitted,

  
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Date: August 30, 2001

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## APPENDIX

O I P E  
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U S PATENT & TRADEMARK OFFICE  
Claims 21-40 are added.

Page 3, line 11 through Page 8, line 10:

The basic components of the image input/output apparatus according to the present invention include an image-capturing device that assumes the operating state or a non-operating state and captures an image of a subject placed on a stage, an image generating means for generating device that generates an image based upon an input image signal and a projection illuminating device that illuminates and projects the image generated by the image generating means device.

In order to achieve the object described above, the image input/output apparatus according to the present invention further comprises a detection means for detecting a detector that detects whether or not the image-capturing device is in the operating state, a selection means for selecting and outputting a selector that selects and outputs either a first image signal output by the image-capturing device or a second image signal input from the outside to the image generating means and a control means for driving the selection means device and a controller that drives the selector so as to select the first image signal if the detection means detector detects that the image-capturing device is in the operating state.

Alternatively, the detection means detector may detect that the image-capturing device is in the non-operating state. In this case, the control means drives the selection means controller drives the selector so as to select the second

image signal if the image-capturing device is detected to be in the non-operating state. In addition, the image input/output apparatus having the ~~detection means for detecting detector that detects~~ that the image-capturing device is in the non-operating state may be further provided with a subject illuminating device that illuminates the subject placed on the stage. When this structure is adopted, the ~~control means controller~~ turns off the subject illuminating device after selecting the second image signal by driving the ~~selection means if the detection means selector if the detector~~ detects that the image-capturing device is in the non-operating state.

The ~~detection means detector~~ may detect a status shift occurring in the image-capturing device from the non-operating state to the operating state instead.

If the image input/output apparatus is provided with a power switch through which a power ON command is issued, the ~~control means controller~~ may engage the ~~detection means detector~~ to detect whether or not the image-capturing device is in the operating state when the power is turned on through the power switch.

The object may be otherwise achieved by turning on the projection illuminating device instead of selecting either the first image signal or the second image signal when the ~~detection means detector~~ detects that the image-capturing device is in the operating state.

The object described above may also be achieved in the image input/output apparatus according to the present

invention having a subject illuminating device by further providing it with a determination ~~means for determining device~~ that determines that the subject illuminating device is fully lit and a ~~control means for turning controller that turns~~ on the subject illuminating device and prohibiting prohibits an image signal output until the determination ~~means device~~ determines that the subject illuminating device is fully lit if the image-capturing device is detected to be in the operating state.

In addition, the object may be achieved in the image input/output apparatus according to the present invention by providing it with a ~~selection means for selecting and outputting selector that selects and outputs~~ either a first image signal output by the image-capturing device or a second image signal input from the outside to the image generating means, a ~~detection means for detecting device, a detector that detects~~ whether or not the image-capturing device is in the operating state, a determination ~~means for determining that judges device that determines~~ that the subject illuminating device has been completely turned on and a controller means for turning on the subject illuminating device and ~~driving the selection means drives the selector~~ so as to select the first image signal after the determination ~~means device~~ determines that the subject illuminating device has been completely turned on if the ~~detection means detector~~ detects that the image-capturing device is in the operating state, in addition to the basic components described earlier.

Alternatively, the object may be achieved in the image

input/output apparatus according to the present invention by providing it with a ~~selection means for selecting and outputting selector that selects and outputs~~ to the image generating means device either a first image signal input from the image-capturing device or a second image signal input from the outside, a ~~detection means for detecting detector that detects~~ the ON/OFF state of the subject illuminating device and a ~~control means for driving the selection means controller that drives the selector~~ so as to output the first image signal if the detection means detects an ON state and to output the second image signal if the ~~detection means detector~~ detects an OFF state.

The object may also be achieved in the image input/output apparatus according to the present invention by providing it with a ~~selection means for selecting and outputting selector that selects and outputs~~ to the image generating means device either a first image signal input from the image-capturing device or a second image signal input from the outside, a ~~detection means for detecting detector that detects~~ whether the first image signal or the second image signal has been input and a ~~control means for driving the selection means controller that drives the selector~~ so as to output the image signal, the input of which has been detected by the ~~detection means detector~~. The controller means in this image input/output apparatus is capable of prohibiting an image signal output by the ~~selection means selector~~ if the ~~detection means detector~~ detects neither the first image signal nor the second image signal.

The structural features described above may be adopted in a document presentation apparatus comprising an image-capturing device that assumes the operating state or the non-operating state and captures an image of a subject placed on a stage, a ~~detection means for detecting~~ detector that detects whether or not the image-capturing device is in the operating state and a ~~selection means for selecting and outputting~~ selector that selects and outputs either a first image signal output by the image-capturing device or a second image signal input from the outside.

Alternatively, the object described above may be achieved in the document presentation apparatus according to the present invention by providing it with an image-capturing device that assumes the operating state or the non-operating state and outputs an image signal by capturing an image of a subject placed on a stage, a ~~detection means for detecting~~ detector that detects whether or not the image-capturing device is in the non-operating state and a ~~prohibiting means for prohibiting~~ prohibitor that prohibits an image signal output if the ~~detection means~~ detector detects that the image-capturing device is in the non-operating state.